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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/649,962 | 08/29/2000 | Tooru Kawasaki | NIP-201 | 7125 |

24956 7590 10/15/2003

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EXAMINER

WACHTEL, ALEXIS A

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
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1764

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/649,962

Applicant(s)

KAWASAKI ET AL.

Examiner

Alexis Wachtel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Detailed Action

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,629,587 to Monden et al in view of US 4,274,962 to Queiser et al.

Monden et al disclose a radioactive waste treatment facility comprising:

Per claim 1: a transferring means for transferring solidifying container (Fig.3), a solidifying agent injecting and kneading means for preparing a solidifying agent paste by kneading a solidifying agent and additive water and injecting said solidifying agent paste into said solidifying container (Fig.1, items 7,8,9,10 and 13) and a waste charging and kneading means which is capable of charging radioactive waste into said solidifying container (Fig.1, items 3,4,5 and 6) and of kneading the radioactive waste in said solidifying container (Col 4, lines 53-68).

Monden et al as set forth above fails to teach that the radioactive waste is charged into said solidifying container at a location downstream from the solidifying agent injecting and kneading means. Queiser et al is directed to apparatuses for treating radioactive concentrates. Queiser et al teaches that it is known to first provide a radioactive waste storage container with a binder and then introduce radioactive waste into said waste storage container to be blended with said binder (Col 6, lines 24-32). In

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view of this teaching it would have been obvious to one of ordinary skill to have switched the locations of the solidifying agent injecting and kneading means and waste charging means, which is capable of charging radioactive waste. One of ordinary skill would have been motivated by the desire to prevent the solidifying and injecting means from being contaminated with stray radioactive particles.

Per claim 2: Wherein; said solidifying agent injecting and kneading means comprises a kneading vessel (10), whereto the solidifying agent and the additive water is supplied; a first kneading blade for agitating inside of said kneading vessel (42); an out-drum type kneader (10) of solidifying agent for preparing said solidifying agent paste; and an injecting means for injecting said solidifying agent paste in said kneader of solidifying agent into said solidifying container (Fig.6).

Per claim 3: wherein said waste charging and kneading means comprises; an elevating means for elevating said solidifying container (Fig.2, items 17 and 17a).

Monden et al as set forth above fails to teach that the radioactive waste is kneaded by an in-drum type kneader. Monden et al does teach that the radioactive waste is kneaded by a vibrational means (Col 4, lines 53-68). Queiser et al teaches that a mixing means can be employed to homogenize radioactive waste in a disposal drum (Fig.3, Col 6, lines 24-32). Since the vibrational means disclosed by Monden et al and mixing means disclosed by Queiser et al are functionally equivalent, having used the mixing means disclosed by Queiser et al instead would have been obviously motivated by the reasonable expectation of success.

Per claim 4: Monden fails to teach that a partition wall separates solidifying

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agent injecting and kneading means from said waste charging and kneading means. However, isolating radioactive systems from non-radioactive systems is well established in the nuclear energy art. As a result, it would have been obvious for one of ordinary skill in the art to have included a partition wall to isolate radioactive components of the facility from non-radioactive components of the facility. One of ordinary skill would have been motivated by the desire to isolate radioactive emissions to the greatest extent possible.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Alex Wachtel, whose number is (703)-306-0320. The Examiner can normally be reached Mondays-Fridays from 10:30am to 6:30pm.

If attempts to reach the Examiner by telephone are unsuccessful and the matter is urgent, the Examiner's supervisor, Mr. Glenn Caldarola can be reached at (703) 308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Glenn Caldarola
Supervisory Patent Examiner
Technology Center 1700